

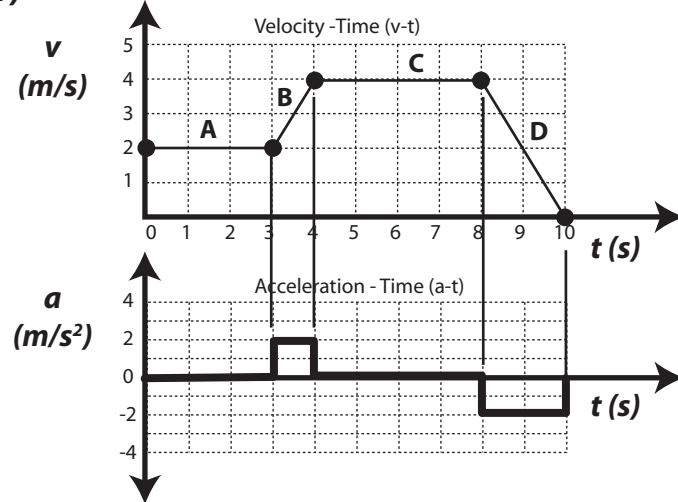
Name: Key

Period: _____ Table: _____

/ 15

Given the following Velocity-Time (v-t) graphs draw the accompanying Acceleration-Time (a-t) Graphs to scale. Use the space to the right to calculate the slope of each line. SHOW YOUR WORK!!!

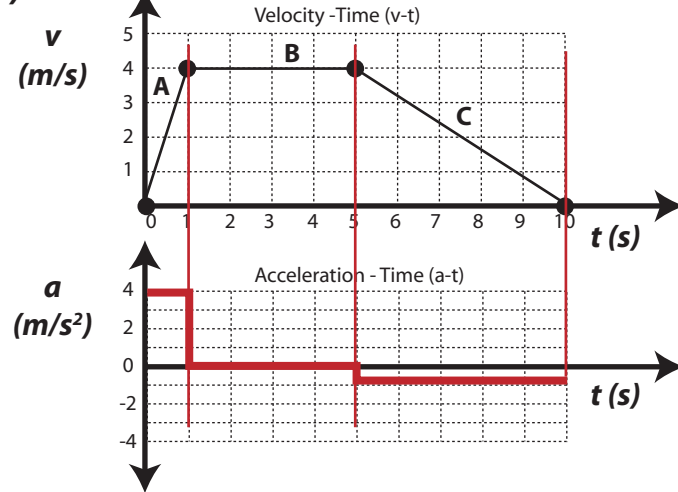
1)



Examples:

Slope of A = rise/run = $0 \text{ m/s} / 3 \text{ s} = 0 \text{ m/s}^2$
 Slope of B = rise/run = $2 \text{ m/s} / 1 \text{ s} = 2 \text{ m/s}^2$
 Slope of C = rise/run = $0 \text{ m/s} / 1 \text{ s} = 0 \text{ m/s}^2$
 Slope of D = rise/run = $-4 \text{ m/s} / 2 \text{ s} = -2 \text{ m/s}^2$

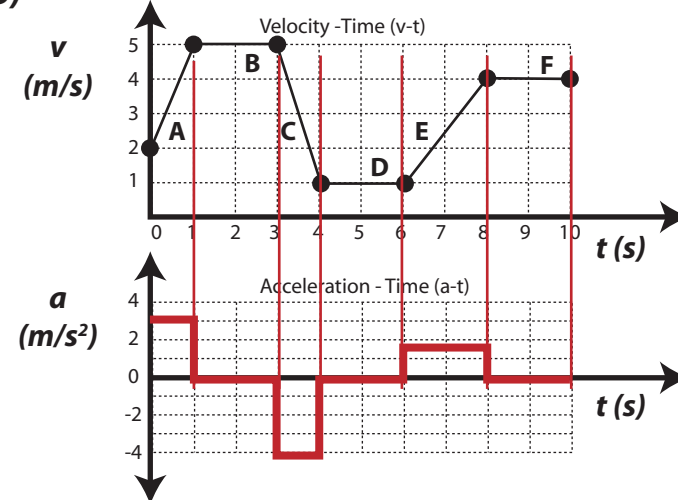
2)



Calculations:

Slope of A = rise/run = $4 \text{ m/s} / 1 \text{ s} = 4 \text{ m/s}^2$
 Slope of B = rise/run = $0 \text{ m/s} / 4 \text{ s} = 0 \text{ m/s}^2$
 Slope of C = rise/run = $-4 \text{ m/s} / 5 \text{ s} = -0.8 \text{ m/s}^2$

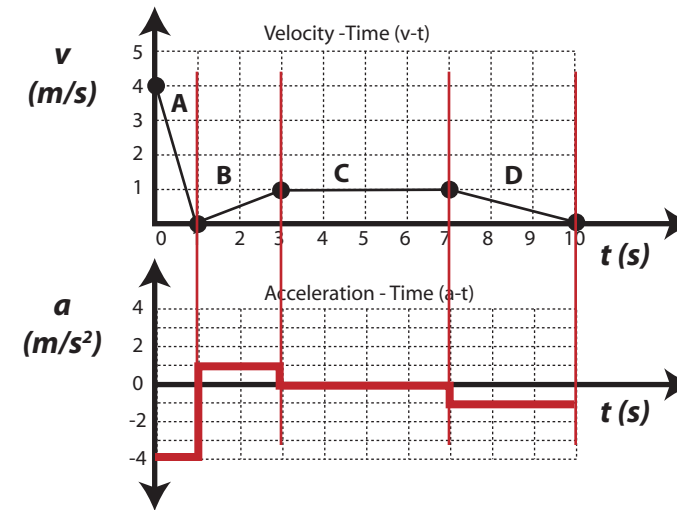
3)



Calculations:

Slope of A = rise/run = $3 \text{ m/s} / 1 \text{ s} = 3 \text{ m/s}^2$
 Slope of B = rise/run = $0 \text{ m/s} / 2 \text{ s} = 0 \text{ m/s}^2$
 Slope of C = rise/run = $-4 \text{ m/s} / 1 \text{ s} = -4 \text{ m/s}^2$
 Slope of D = rise/run = $0 \text{ m/s} / 2 \text{ s} = 0 \text{ m/s}^2$
 Slope of E = rise/run = $3 \text{ m/s} / 2 \text{ s} = 1.5 \text{ m/s}^2$
 Slope of F = rise/run = $0 \text{ m/s} / 2 \text{ s} = 0 \text{ m/s}^2$

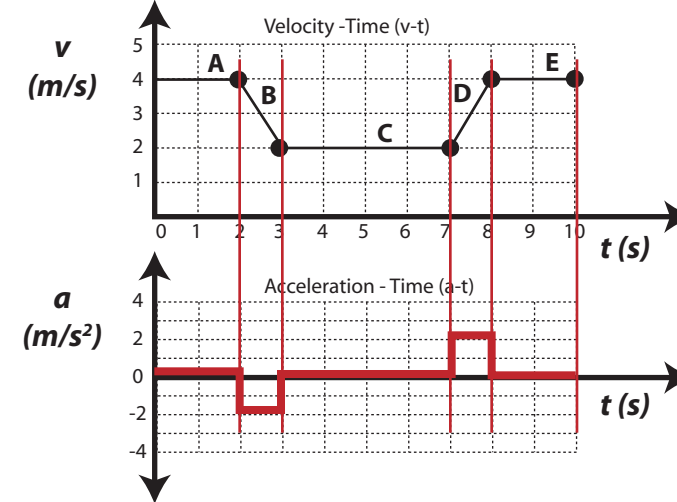
4)



Calculations:

Slope of A = rise/run = $-4 \text{ m/s} / 1 \text{ s} = -4 \text{ m/s}^2$
 Slope of B = rise/run = $1 \text{ m/s} / 2 \text{ s} = 0.5 \text{ m/s}^2$
 Slope of C = rise/run = $0 \text{ m/s} / 4 \text{ s} = 0 \text{ m/s}^2$
 Slope of D = rise/run = $-1 \text{ m/s} / 3 \text{ s} = -0.33 \text{ m/s}^2$

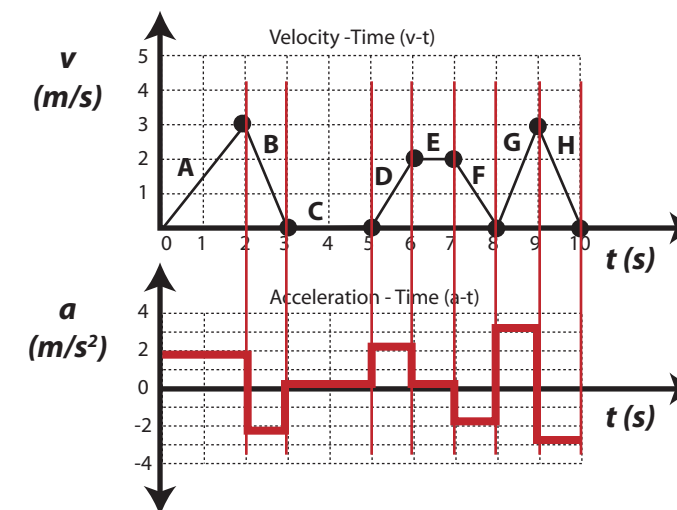
5)



Calculations:

Slope of A = rise/run = $0 \text{ m/s} / 2 \text{ s} = 0 \text{ m/s}^2$
 Slope of B = rise/run = $-2 \text{ m/s} / 1 \text{ s} = -2 \text{ m/s}^2$
 Slope of C = rise/run = $0 \text{ m/s} / 4 \text{ s} = 0 \text{ m/s}^2$
 Slope of D = rise/run = $2 \text{ m/s} / 1 \text{ s} = 2 \text{ m/s}^2$
 Slope of E = rise/run = $0 \text{ m/s} / 2 \text{ s} = 0 \text{ m/s}^2$

6)



Calculations:

Slope of A = rise/run = $3 \text{ m/s} / 2 \text{ s} = 1.5 \text{ m/s}^2$
 Slope of B = rise/run = $-3 \text{ m/s} / 1 \text{ s} = -3 \text{ m/s}^2$
 Slope of C = rise/run = $0 \text{ m/s} / 2 \text{ s} = 0 \text{ m/s}^2$
 Slope of D = rise/run = $2 \text{ m/s} / 1 \text{ s} = 2 \text{ m/s}^2$
 Slope of E = rise/run = $0 \text{ m/s} / 1 \text{ s} = 0 \text{ m/s}^2$
 Slope of F = rise/run = $-2 \text{ m/s} / 1 \text{ s} = -2 \text{ m/s}^2$
 Slope of G = rise/run = $3 \text{ m/s} / 1 \text{ s} = 3 \text{ m/s}^2$
 Slope of H = rise/run = $-3 \text{ m/s} / 1 \text{ s} = -3 \text{ m/s}^2$